CLASSIFICATION CONFIDENTIAL [redacted] S ONLY

COUNTRY USSR

REPORT [redacted]

TOPIC Information on the Zagi Institute

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EVALUATION [redacted] PLACE OBTAINED [redacted] 25X1

DATE OF CONTENT [redacted]

DATE OBTAINED [redacted] DATE PREPARED 31 August 1954 25X1

REFERENCES

PAGES 3 ENCLOSURES (NO. & TYPE)

REMARKS

This is UNEVALUATED Information

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1. The Zagi Institute consisted of three installations including a relatively small installation at the old institute in Moscow, the main institute in Shukovski, and a third institute in Novosibirsk. The Zagi Institute was a research institute and also a university. The exclusive mission of the attached university was to train scientific personnel needed at the Zagi Institute. The institute also exercised an advisory rôle for the Soviet industry. The designs bureau run by Soviet aircraft designers such as Ilyushin, Tupolev, and others, submitted their new designs to the Zagi Institute for advisory opinions. The advisory opinions given by the institute did not have a binding character. 25X1

2. The so-called government examination, which may be passed either at the university or at an institute, roughly corresponds to an examination passed at one of the institutes of technology in the GDR. After passing this examination, the Soviet student becomes a "candidate". The candidate may work as an assistant at one of the universities or, which happens much more frequently, he may take up a position at an industrial enterprise which releases him for two days per week for his studies. The period of candidacy is not limited. The candidacy is concluded by a special examination after which the student becomes a "candidate of science", the Soviet equivalent of the German doctor degree. The acquisition of the Soviet doctor degree requires an additional study time of at least two years. The doctor thesis submitted by the candidate must be defended before a group of university professors who decide on the acceptance of the thesis in a secret vote. The Soviet doctor degree may be compared to the German "Dr.habil", a university degree which involves the "venia legendi", i.e. the permission to lecture at a German university.

3. It is believed that research work in the USSR does not rest on so broad a basis as in Germany or in the USA since Soviet research work has to serve specific technological requirements. At regular time intervals, special sectors of research are selected for thorough investigation. Soviet science and technology have reached a status, particularly in the field of aerodynamics, which is not behind the efficiency of the West. [redacted] Soviet research in this field was abreast of Western 25X1

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research work. Soviet research is no longer dependent on the results of Western research or Western technical literature. It appears that the Soviets have become autonomous in this field. Soviet scientists attached to the Zagi Institute are very capable. The young scientists at this institute worked with a fanatical zest and displayed much talent. The technical equipment of the Zagi Institute was, however, not up to Western standards. There was a shortage of calculating machines and most of the calculations were made with the help of a calculating rule and a table of logarithms. The largest wind tunnel available at the Zagi Institute was believed to be the wind tunnel previously available at the German Aeronautical Test Institute in Adlershof. This tunnel was set up in the USSR about 1948/1949.

4. Scientific work is held in high esteem in the USSR. German scientists were always treated with the greatest respect by their Soviet colleagues and assistants. It was even rumored at the institute that Stalin had given an order that some Germans be treated in every respect like Soviet citizens. Scientific research work is promoted by a number of Stalin prizes which are awarded annually in recognition of outstanding achievements without regard to political leanings. A Stalin prize was given to a young Ukrainian, son of a night watchman, who was not a member of the Communist Party. Numerous prizes are also awarded in recognition of special achievements on occasion of national holidays such as the 1st May and the 7th October [redacted]

5. [redacted] research work in the following fields [redacted] 25X1 25X1

a. Deformation occurring on airframes at speeds of about 800 km/h and their influence upon longitudinal stability. Work on this project had been started at Adlershof prior to the end of World War II. The Soviets who had not done research work in this field, were greatly interested in the results of this work.

b. Vibration of fuel in fuel tanks of aircraft flying at great speeds. Target travel occurring during short bursts of fire from automatic weapons mounted near the axis of the fuselage of tailless aircraft, and its causes.

c. Bending strength and twisting strength in swept-back wings of aircraft capable of high speeds.

d. Determination of pressure distribution curves for rudder surfaces with special consideration given to boundary layers. A reduction in the previous interval of error occurring in such calculations from 30 percent to 10 percent was achieved.

e. Problems of the dynamics of gases.

6. No definite conclusions could be drawn from these research missions. The degree of secrecy imposed by the Soviets upon all research work having a military bearing far exceeded the secrecy previously in force with the German armed forces and the German armament industry. From the discussions held about the possibility of developing a tailless delta-type aircraft, it was inferred that the Soviet rejected this design for smaller aircraft such as fighters and believed that it was feasible only for medium bombers and similar craft. Three types of helicopters were under development in the USSR. Details were, however, not available.

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